

## EXECUTIVE SUMMARY

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### Project Overview

Brookhaven Energy Limited Partnership is seeking a Certificate of Environmental Compatibility and Public Need pursuant to Article X of the New York State Public Service Law for the construction of a nominal 580-megawatt combined-cycle electric generating station. The proposed Brookhaven Energy Project (the Project) is located at Exit 66 of the Long Island Expressway in the Town of Brookhaven, Suffolk County, New York. The site is adjacent to a Keyspan natural gas pipeline and a Long Island Power Authority (LIPA) transmission corridor. The site location is shown in Figure E-1. A rendering of the Project is shown in Figure E-2. A site plan is shown in Figure E-3. The Project will provide competitively priced electric power to Long Island. It will interconnect to the power grid immediately adjacent to the site. The Project will use clean natural gas as its exclusive fuel, which can be delivered to the Project through the natural gas pipeline that is adjacent to the site. Additional gas compression facilities will be built on-site.

Operation of the Project could save Long Island up to approximately \$150 million in electric production costs annually, as bilateral contracts expire, by reducing the average spot market price by 18%. Furthermore, by displacing older, higher emitting plants, the Project is projected to *reduce* the emission of smog-forming nitrogen oxides (NO<sub>x</sub>) on Long Island by 27%, and sulfur dioxide (SO<sub>2</sub>) by 35%.

The Project is among the most water-efficient combined-cycle plants in the world. The minimal water demand will be met by the Suffolk County Water Authority's network of more than 400 wells, with no required upgrades. The Project's minimal wastewater discharge is proposed to be sent to the Yaphank Sewer Treatment Plant, owned and operated by the Suffolk County Department of Public Works.

The Project's use of the advanced Alstom Power GT-24 turbine-generator system will make it highly efficient while also meeting stringent environmental regulations. The use of low-NO<sub>x</sub> combustors, Selective Catalytic Reduction (SCR) technology, and an oxidation catalyst will ensure that the Project will comply with federal and state air emission standards. Furthermore, the Project will offset its emissions of NO<sub>x</sub> at a rate of 1.3 to 1. Predicted concentrations of air pollutants are well within stringent standards and guidelines.

### Siting and Design Description

Project siting and design decisions were guided by existing federal, state and local laws and regulations. In making these decisions, Brookhaven Energy took into consideration the concerns and suggestions raised by area residents during public meetings, stipulation negotiations, and individual contacts.

The Project will be constructed on a site that is well suited to the location of an electric generating facility, is proximate to other industrial uses, and is identified as an appropriate area for industrial development due to its location south of the Long Island Expressway and outside the Central Pine

Barrens protected by New York State. While an abundant supply of water and adequate wastewater treatment infrastructure is available, the Project will minimize both its water use and wastewater generation through air cooling and recycling. The proximity of the Project to the key infrastructure that serves it will avoid building significant new interconnections, thereby minimizing public inconvenience and environmental impacts.

Project construction will also create more than 700 temporary jobs during construction and 25 permanent jobs. Total direct and indirect economic benefits to Nassau and Suffolk Counties from increased earnings and purchases, excluding property taxes or similar assessments, will increase economic output by \$105 million during the construction period and \$3.29 million per year during operation. In addition, tax payments will provide additional substantial benefits to the Town of Brookhaven, Longwood School District, Suffolk County and other local services. The above estimates do not include economic impact associated with energy cost savings.

The Project will serve the public interest. Because it will be operated as a merchant plant in the competitive New York markets, the financial risk of the investment will be borne entirely by Brookhaven Energy and not by the ratepayers. Adding the Project to New York's electric generation network is entirely consistent with the goals of the current State Energy Plan of promoting a competitive electric market. Section 1 of the Application details the benefits from the Project and shows that the Project is in the public interest.

## Technical Studies

Brookhaven Energy has conducted a series of environmental, community and engineering studies in connection with the design and development of the Project. Extensive regulatory agency consultation and public involvement have made significant contributions in this process. The scope, methodology, data collection, and design goals supporting the environmental and engineering studies were guided by existing statutory and regulatory requirements and by stipulations entered into with state agencies after a productive consultation process. This approach resulted in a plan for the construction and operation of the Project that minimizes environmental impacts.

The field studies and technical analyses address air quality; cultural resources; electric transmission facilities, including the potential change in electric and magnetic fields (EMF); gas transmission facilities; land uses and local laws; noise; socioeconomics; soils, geology and seismology; terrestrial ecology and wetlands; traffic and transportation; visual resources; water supply and discharge impacts; and storm water management. These studies demonstrate the proposed Project's avoidance, minimization, or mitigation of potential adverse impacts. Section 2 of the Application is a Project Summary that serves as a guideline to all of the environmental, community and engineering analyses.

In summary, Brookhaven Energy believes its investment in this Project represents an environmentally responsible and innovative electric system infrastructure improvement for Long Island and, indeed, for New York State.

## 9. FUEL FACILITIES

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### 9.1 Description of the Proposed Gas Pipeline Interconnection

#### 9.1.1 *Interconnection, Route, Pressure*

This section addresses Stipulation 4, Clause 1 (a), which requires a detailed description of the proposed gas pipeline interconnection(s), including interconnection facilities, pipeline route, size, operating pressure, and the need for new on-site compression facilities.

The natural gas pipeline to serve the Project will be a dedicated service lateral that will interconnect with the Keyspan Energy pipeline located on the south side of the Long Island Expressway. The interconnection facilities will include the pipeline lateral, valves, regulators, metering equipment, service taps and related pipeline facilities to assure safe and reliable service (e.g., fencing and pipeline markers).

The pipeline lateral is proposed to follow along the east side of Sills Road and into the Project site. From the existing pipeline, the lateral pipeline route follows approximately 1,900 feet on Sills Road adjacent to the Project site boundary. The route of the pipeline lateral is shown in [Figure 9-1](#). A typical Keyspan design detail is shown in [Figure 9-2](#). Based on Project operating requirements, the approximate nominal diameter of the lateral pipeline will be 16 inches, with a maximum allowable operating pressure of 350 psig. Booster compressors will be installed on-site to raise the gas pressure to meet the combustion turbines' requirements. The gas compressors are expected to be installed in a pre-engineered building with insulated walls, to be located west of the combustion turbines. The gas compressors will be electrically driven. They will boost the Project's natural gas supply pressure to approximately 750 psig. Individual compressors are sized to serve one unit and are dedicated to that unit.

#### 9.1.2 *Construction, Operation and Ownership*

This section addresses Stipulation 4, Clause 1 (b), which requires an identification of who will construct, own and operate the proposed gas pipeline interconnection.

The pipeline lateral will be built, owned and operated by Keyspan Energy, up to and including the metering station on the Project site. The pipeline lateral will be constructed by certified contractors in accordance with all applicable safety requirements. Keyspan Energy will likewise install and own the meter, valves and related facilities. The compressors and all other natural gas-related equipment downstream of the metering station will be built, owned, and operated by Brookhaven Energy.

#### 9.1.3 *Volume of Gas Required to Serve the Project*

This section addresses Stipulation 4, Clause 1 (c), which requires an analysis of the peak hour, peak day, seasonal and annual natural gas requirements of the Project.

Peak hour, peak day, seasonal and annual natural gas consumption depends on the load at which the Project is operating, the ambient temperature, and whether or not steam injection is being used. The peak hour consumption is 3,744 Dth. The peak day consumption is based on 24-hour operation during winter hours, or 89,992 Dth.

Seasonal consumption rates can be estimated as follows. Without steam injection, considering 24-hour operation at 100% load, between 79,344 Dth (summer condition of 80°F) and 89,992 Dth (winter condition of 15°F) would be consumed on a given day. Assuming a very hot summer day (97.5°F), with 16 hours of steam injection, the consumption rate would be 87,024 Dth. Annual consumption, conservatively estimated on the basis of 100% load at all hours of the year (except seven days when each unit will not operate), and with 360 hours of steam injection, is approximately 28,543,824 Dth/year or 81,321 Dth/operating day.

## **9.2 LDC and Capacity Issues**

### ***9.2.1 Impact to LDC, Upgrades***

This section addresses Stipulation 4, Clause 1(d), which requires an analysis of impacts to the local natural gas distribution company (LDC), including a description of upgrade requirements.

Because the Project will receive gas from the adjacent LDC infrastructure, upgrades are necessary in order to avoid adverse impacts on LDC distribution capability and reliability. Brookhaven Energy requested, and Keyspan Energy completed, a flow study that addresses what additional upgrade requirements are necessary to provide service to the Project without affecting delivery to other customers. The study included both 30-day interruptible and firm gas transportation. Physical upgrades required for the two scenarios are the same. All upgrades would be within existing Keyspan Energy customer-serving pipeline corridors, and none would create new rights-of-way.

The only upgrade that is not already in Keyspan Energy's construction plan is a 2.3-mile-long upgrade along Commercial Street in Garden City, Nassau County, adding a 24" pipeline adjacent to an existing 20" pipeline. Since this upgrade is not a Project interconnection (it is not for the Project's exclusive use *and* it creates no new rights-of-way), its environmental impacts are outside of the agreed-upon scope of the Application. However, in order to address impacts as completely as possible, a summary of its expected minimal environmental impacts is presented in Section 9.3 below.

Brookhaven Energy notes that Keyspan Energy is currently implementing and planning an upgrade program that is independent of the proposed Project. As part of its ongoing program, Keyspan will be installing 12.8 miles of 20" diameter pipeline from River Road in East Yaphank to Nugent Drive in Riverhead. This is the existing main pipeline route to eastern Long Island. Presently, there is an 8" diameter pipeline serving this corridor. The upgrade is proposed to provide adequate gas supply to existing residential customers, and will be conducted in three phases. Phase I, scheduled to take place in 2001, is the installation of 3.4 miles of pipeline from River Road to Weeks Ave. Phase II, scheduled to take place in 2003, is the installation of 6.6 miles of pipeline from Weeks Ave. to River

Road in Calverton. Phase III, scheduled for 2005, is the installation of 2.8 miles of pipeline from River Road in Calverton to Nugent Drive in Riverhead. It is possible that the construction and operation of the Project could affect the timing of these upgrades, but it is not expected to affect their scope. While all of these projects are scheduled for construction over the next five years, construction schedules are revised annually by Keyspan Energy to reflect development of actual load patterns on the local distribution system. Note that all of the upgrades described above were planned prior to the announcement of the Brookhaven Energy Project and will occur in previously disturbed rights-of-way. Thus, they are not interconnections, as defined in the Stipulations.

### 9.2.2 Pipeline Capacity

This section addresses Stipulation 4, Clause 1(e), which requires, in part, a demonstration that there will be sufficient available pipeline capacity to support the requirements of the Project at the time of commercial operation.

The overall local gas system owned by Keyspan consists of the former Long Island Lighting Company and Brooklyn Union Gas systems. Together, these systems are served by four pipelines, and Keyspan holds long-term firm transportation contracts on all of them. The four pipelines are Williams-Transco, Iroquois, Texas Eastern Transmission Corporation (TETCO) and Tennessee Gas Pipeline (Tennessee). Keyspan also contracts for underground storage and owns peaking supplies (LNG facilities) to meet gas demand. Keyspan's delivery capability is outlined in Table 9-1.

**Table 9-1: Keyspan Local Distribution Capacity**

Company	Pipeline Capacity	Underground Storage	Peaking Supplies	Total Firm Capacity
	(MDth/day)			
Keyspan Gas West (formerly Brooklyn Union)	750	779	504	2,033
Keyspan Gas East (formerly Long Island Lighting Co.)	263	294	188	745
<b>Total Keyspan</b>	<b>1,013</b>	<b>1,073</b>	<b>692</b>	<b>2,778</b>

Note: Securities and Exchange Commission 10-K filing for 12/31/99

With its capacity contracts on interstate pipelines, Keyspan is able to purchase natural gas from both Canadian and domestic sources. Keyspan purchases gas on both a long-term basis and on a daily basis in the spot market. Also, it purchases gas at various pricing points along the systems, anywhere between the supply basins and the LDC "gate."

Keyspan's distribution of pipeline capacity on Long Island is as follows:

1. Transco	58.8%
2. TETCO (via Transco)	25.4%
3. Iroquois	9.7%
4. Tennessee (via Iroquois)	6.1%
Total	100.0%

Peak demand on the Keyspan Long Island system is typically between 300 and 400 MDth/day – approximately half of total firm capacity. Record demand days on the system have been as follows: 641 MDth on January 17, 2000 (86% of firm capacity), and 585 MDth on January 19, 1995 (78% of firm capacity).<sup>1</sup> If the Project were to purchase gas on a 365-day firm basis, it would constitute approximately 12% of the firm demand.

In order to ensure sufficient margins, Keyspan Energy has concluded that the Project should take deliveries equally from the Iroquois and Transco systems, and ensure a delivery pressure of 450 pounds per square inch (psi) at the Transco gate. This arrangement, together with the upgrades referenced above, would be sufficient to provide the necessary pipeline capacity to support the requirements of the Project.

### *9.2.3 Projected Gas Supply and Demand*

This section addresses Stipulation 4, Clause 1(e), which requires, in part, a demonstration that there will be sufficient gas supply to support the requirements of the Project at the time of commercial operation.

Although the local distribution system, with the referenced upgrades, is sufficient to accommodate the Project, the long-term outlook for gas supply to Long Island is that there will be a substantial increase due to the addition of incremental gas deliveries from the Canadian east coast, specifically Sable Island supplies to New England markets. Since January 2000, approximately 400 MDth/day of new supplies from offshore Sable reserves have been delivered via the Maritimes and Northeast Pipeline to New England (at Dracut, Mass.). Planned expansions in offshore production levels (up to 1,000 MDth/day by 2010) have induced companies to search for gas markets beyond New England. This search has resulted in several proposals to construct pipeline expansions over to Long Island and the rest of the New York market.

A number of pipelines have filed or are proposing to file expansion projects with the Federal Energy Regulatory Commission. These expansions should directly increase the operational flexibility and reliability of natural gas as an electric generation fuel on Long Island. More than one of these projects is expected to proceed, which would mean that there would be ample pipeline capacity available to serve incremental loads. Table 9-2 lists the pipeline projects that could increase gas deliveries into Long Island.

With respect to natural gas demand, it is expected to increase as more power plants use natural gas for fuel. The current New York State Energy Plan includes a high demand growth case that assumes all new electric generation capacity needs within the planning horizon to the year 2016 will be met through new natural gas-fired generation units located in New York. The high-demand projection for 2016 is approximately 2,200 MMDth per year (see Appendix V-2). The Project's annual gas consumption (estimated at 28.5 MMDth/year in Section 9.1.3 above) is approximately

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<sup>1</sup> Keyspan Energy Press Release, January 18, 2000.

2% of projected statewide natural gas demand in year 2006 (1400 to 1600 MMDth) and less than 1-2% of the 2016 demand (1500 to 2200 MMDth).

**Table 9-2: Proposed Pipelines to Long Island**

	<u>Sponsor</u>	<u>Capacity (MDth/day)</u>	<u>Gas Source</u>	<u>Planned In- service</u>
		250	<u>Algonquin supplies and Atlantic Canada</u>	<u>Nov 1, 2003</u>
<u>East Long Island</u>	<u>Iroquois</u>	160	<u>Western Canada</u>	<u>Nov 1, 2003</u>
<u>CT Long Island</u>	<u>El Paso</u>		<u>Tennessee supplies and Atlantic Canada</u>	<u>Nov 1, 2003</u>
	<u>Williams/Duke</u>	750	<u>Gulf Coast</u>	<u>Dec 1, 2002</u>

#### **9.2.4 Project's Gas Arrangements**

This section addresses Stipulation 4, Clause 1(f), which requires an identification of the nature and extent of natural gas capacity contracts and transportation service as firm, interruptible or both.

The Project intends to use PSC-approved Keyspan Energy tariffs. The transportation services will include firm transportation, interruptible transportation, displacement, and exchange services to increase overall deliverability to the Project.

As a merchant facility, the Project may not have long-term electric sales agreements, nor is it likely to have fixed-price gas purchase commitments to producers or pipelines. The Project will be part of an integrated portfolio of generating facilities in the Northeast, which are owned or operated by subsidiaries of ANP. Its fuel supply will be provided from marketers selling gas from a diversified combination of geographic basins, such as Western Canada, mid-continent, Gulf Coast and Appalachia, as well as through new pipeline capacity being developed in Nova Scotia and northern New England.

Bundled services, including released pipeline capacity, exchange with other marketers and other portfolio supply positions, will be employed to provide supply and pipeline capacity from a variety of upstream and downstream resources. Brookhaven Energy notes that although it may not contract for year round firm transportation, based on the referenced forecasts and use of bundled services, it expects to obtain adequate supplies of gas to operate throughout the entire year.

In addition, affiliates of Brookhaven Energy currently own or have agreements in place for a portfolio of gas supply and firm transportation. Affiliates of the Project have 30,200 Dth/day of firm transportation on Algonquin Gas Transmission (AGT) that can access Brookhaven Energy via

secondary delivery point rights, pursuant to AGT's FERC tariff, into IGTS for further delivery to the Project via Keyspan Energy. Affiliates of Brookhaven Energy also have entered into firm transportation agreements for 50,000 Dth/day of firm transportation on Tennessee Gas Pipeline (TGP) that can access IGTS and Transco via secondary delivery rights. Finally, affiliates of Brookhaven Energy have entered into gas supply contracts for firm bundled delivery to points in Massachusetts via TGP and AGT for volumes of 43,000 Dth per day and 43,000 Dth per day, respectively. These two gas supply contracts allow affiliates of Brookhaven Energy to deliver that gas at alternate delivery points that could include Keyspan Energy for redelivery to the Project. Thus, affiliates of Brookhaven Energy own a portfolio of gas or gas transportation of up to 166,200 Dth/day that could be delivered to the Project. This is almost double the Project's expected maximum demand (approximately 90,000 Dth/day at 15°F).

As a merchant power plant operator, Brookhaven Energy may sell all or a portion of the electric output of the Project via gas "tolling" contracts. Tolling allows third parties to supply their gas to the Project and receive electricity in return for paying the Project a "tolling fee." Thus, Brookhaven Energy will not contract for all of its gas on a firm basis because it then may have to forego a potential tolling opportunity. The daily gas market provides gas for those willing to pay the most competitive price. If Brookhaven Energy does not "toll," the plant gas supply may be purchased in the daily gas market.

As described in Section 9.2.3 above, there are several proposals being made by different interstate pipeline companies to increase gas transportation capacity to Long Island. Because the Project will be a large consumer of natural gas, several of these entities have approached Brookhaven Energy. If one or more of these proposals moves forward, it will be subject to stringent and comprehensive review by the Federal Energy Regulatory Commission pursuant to Section 7(c) of the Natural Gas Act. In the event one of these projects becomes an alternate source of fuel supply to Brookhaven Energy, it will further enhance the reliability of the Project's fuel supply. Brookhaven Energy's use of any additional available pipeline capacity will be based on maintaining a low-cost, reliable fuel supply.

#### *9.2.5 Compliance with PSC Interruptible Gas Service Order*

On August 24, 2000, the Public Service Commission issued an order regarding the preparation for fuel switching by interruptible customers (Case 00-G-0996). The Commission was concerned that "warm weather associated with previous winter seasons had produced some interruptible customers who were unprepared for periods of cold weather and the possibility of interruptions. During the interruptions, many interruptible customers either remained on the system or attempted to purchase alternate fuel on the spot market." As a result, the Commission required gas utilities to ensure that their interruptible customers "have provable storage capacity" for their alternate fuels. Financial disincentives are included in the order for customers who do not cease to take gas deliveries when informed that they are being interrupted.



Because the Project has no alternate fuel, it will either purchase 365-day firm capacity or will be an interruptible customer. If gas supply to the Project is interrupted, Brookhaven Energy will cease to take deliveries. By so doing, the Project will comply with the PSC Interruptible Gas Service Order.

### 9.3 Gas Upgrade Environmental Assessment

This section addresses Stipulation 4, Clause 3, which requires an assessment of environmental impacts of any upgrades as specified in other stipulations and preamble.

As stated above, the only gas reinforcement that is not already in Keyspan Energy's construction plan is a 2.3-mile-long, 24"-diameter gas pipeline upgrade main under Commercial Avenue near Garden City, Nassau County, within the Town of Hempstead ([Figure 9-3](#)). There is presently a 20"-diameter pipeline in this corridor. Since this upgrade is not a Project interconnection as defined in the stipulations (it is not for the Project's exclusive use *and* it creates no new rights-of-way), it is outside of the agreed-upon scope of the Application. However, in order to address impacts as completely as possible, its environmental impact is presented here.

Refer to the attached aerial photograph ([Figure 9-4](#)), which illustrates the types of land use that exist near the pipeline upgrade route. The upgrade begins just west of the intersection of Oak Street and Commercial Avenue and follows Commercial Avenue east to Quentin Roosevelt Boulevard. Land use in this section is industrial/commercial with commercial businesses on the south side of Commercial Avenue and railroad tracks and industrial uses on the north side of Commercial Avenue. After crossing Quentin Roosevelt Boulevard, the pipeline would continue eastward along the edge of a railroad right-of-way and passing adjacent to the Mitchel Complex (military housing) and commercial office buildings to the north. After passing by the Mitchel Complex, the pipeline would cross Endo Boulevard, traverse parking lots associated with commercial buildings and then cross under the Meadowbrook Parkway. The pipeline would terminate at Merrick Ave, east of the Meadowbrook Parkway. On the basis of standard practices in the pipeline industry Brookhaven Energy is able to qualitatively describe the following environmental impacts from the proposed 2.3-mile gas upgrade:

#### *Air*

The pipeline upgrade will not require additional compression and thus air impacts are not expected. Airborne dust from construction work will be minimal as construction is expected to be a brief process and will be restricted to excavation and backfilling of a narrow trench.

#### *Cultural/Historical*

The pipeline will be placed under streets and in a previously disturbed railroad right-of-way. As such, the pipeline will not affect cultural or historical resources.

### *Land Use*

The upgrade will constitute no new land use and will require no additional land area. The duration of construction is expected to last only a few weeks, thereby minimizing inconvenience to abutters. Once installed, the upgraded pipeline will not affect existing residential, commercial and industrial uses in the area.

Land uses within a mile of the upgrade include several institutions and large commercial complexes, and public areas. These include the Roosevelt Mall, the old Roosevelt Raceway, the American Ref-Fuel waste-to-energy plant, the Nassau Coliseum, Hofstra University, and Nassau Community College. Eisenhower Park and residential areas of Garden City are also within a mile of the upgrade (on the east and west ends, respectively). None of these more distant land uses would be pressed to make changes in land use patterns because of this upgrade, and thus would not be affected in an adverse way.

### *Noise*

Noise associated with construction vehicles and tools will be of a short duration. Construction work will only occur during hours that are in accordance with Keyspan Energy's standard practices for pipeline maintenance and construction. Once installed, there will be no noise impact. Note that much of the area already has relatively high ambient noise levels associated with high volumes of traffic on the Meadowbrook Parkway as well as traffic on other streets in the area including Commercial Avenue and Stuart Avenue. Relatively high ambient noise levels are also a result of industrial uses along Commercial Avenue.

### *Safety*

Appropriate safety measures will be taken during pipeline construction, consistent with Keyspan Energy standard practices for pipeline maintenance and construction.

### *Solid Waste*

Any bituminous roadway material and other excavated materials that need to be removed as part of the work will be disposed of at an approved disposal site.

### *Terrestrial Ecology*

The upgrade consists of installing a new pipeline that would follow under a paved street. No tree clearing or other removal of vegetation is anticipated. Thus, no impact to plant or wildlife habitat areas is anticipated.

### *Traffic and Transportation*

The upgrade will require closure of a lane or lanes within the roadway. This work will be managed in accordance with Keyspan Energy's standard procedures for lane closure during pipeline maintenance and construction. Once installed, there will be no traffic impact.

### *Visual*

The pipeline will be located entirely underground in streets and along an existing railroad ROW and thus will not result in visual impacts. The construction area will be resurfaced as appropriate.

### *Groundwater, Water Supply and Wastewater*

If hydrostatic testing of the pipe is performed, it is expected that approximately 290,000 gallons would be necessary during the single testing event. It is anticipated that the water would be procured from a nearby water district and discharged under standard hydrostatic test discharge authorizations that are typical of such maintenance and construction.

### *Surface Waters and Wetlands*

The section of Commercial Street and other areas where the upgrade would occur is not located in or near wetlands, and thus the upgrade does not appear to affect any surface waters or wetlands.

### *Conclusion*

In conclusion, the proposed 2.3-mile upgrade to Keyspan Energy's local natural gas distribution system in Garden City, Nassau County, constitutes a minimal environmental impact of temporary duration, while providing lasting benefits by way of ensuring adequate gas supply to the Project and thus helping to lower Long Island's air emissions.

Note that the above assessment does not address the natural gas interconnection for the Project – the approximately 1,700-foot lateral between the Long Island Expressway South Service Road and the Project. That interconnection is assessed in greater detail together with the Project, its laydown area, and other interconnections, as applicable, within Sections 6 through 17.

## **9.4 Storage of Fuel Oil for Emergencies**

This section addresses Stipulation 4, Clause 2. Clause 2 was developed in response to the Project's proposal – since eliminated – to store, transport, and use backup fuel oil. In the Preliminary Scoping Statement, one million gallons of oil storage were proposed. Prior to finalizing the stipulations and filing its air permit applications, Brookhaven Energy informed the agencies involved as signatories to the stipulations process, as well as local officials and interested parties, that backup fuel oil has been eliminated as a feature of the Project. Thus, this section addresses Stipulation 4, Clause 2 only to the extent it relates to the storage of minimal amounts of fuel oil for emergency generators and backup fire pump.

#### 9.4.1 Use and Replenishment

Clause 2(a), (c), (d) and (e) required, respectively, the following.

- (a) *An estimate of the rate of fuel oil consumption at full power output.* This is no longer applicable.
- (c) *An estimate of the maximum period that the plant could burn oil without refueling.* This is no longer applicable.
- (d) *A description of the proposed method of oil delivery and on site oil delivery infrastructure or offsite interconnects and an estimate of the maximum rate of delivery, given the transportation methods and facilities proposed.* This is no longer applicable. Delivery of diesel for emergency equipment will occur approximately twice a year. Deliveries will be made by a private local oil vendor.
- (e) *An estimate of the expected frequency and duration of oil firing of the facility and a discussion of the assumptions and analysis used to arrive at this estimate.* This is no longer applicable.

#### 9.4.2 Storage and Handling

Clause 2(b) addresses the storage capacity of any tanks, a description of secondary containment structures, and measures proposed to prevent, contain or clean up oil spills. Furthermore, Clause 2(f) requires Brookhaven Energy to submit a Spill Prevention, Countermeasures and Control (SPCC) Plan, per 40 CFR 112. Finally, Clause 2(g) requires applications for the appropriate state permits related to bulk fuel oil storage.

The only fuel oil storage at the Project will be small aboveground tanks associated with emergency diesel equipment: a backup diesel fire pump (to be operated in case power from the grid to the firewater pumping system is not available during a firefighting event) and two emergency diesel generators (which are designed to operate only in order to ensure safe shutdown of the plant in case power from the grid is not available; and during testing). Total on-site storage will be approximately 1,700 gallons. This fuel storage will include secondary containment in the form of 110% rupture basins for both the emergency diesel generators and the fire pump storage tanks.

Fuel delivery for the emergency diesel engines is expected to occur very infrequently because these units are only operated during emergencies and for testing. The emergency generator fuel tanks rest on concrete foundations, with the fuel filling connections being housed within the engine enclosure. The emergency fire pump fuel tank will be housed within a building with a concrete floor.

In order to comply with the requirements of Stipulation 4, Clause 2(f), Brookhaven Energy has included a draft SPCC plan in Appendix Z.

Stipulation 4, Clause 2(g) is applicable only if the Project includes storage of 400,000 gallons of fuel oil or more. In that case, the Project would be subject to Article 12 of the Navigation Law, Section 174 (licenses), 17 NYCRR 30 (Oil Spill Prevention and Control -- Licensing of Major

Facilities), 6 NYCRR 610 (Certification of Onshore Major Facilities), and 6 NYCRR 612 through 614 (Petroleum Bulk Storage Regulations).

By eliminating backup oil storage, the Project is no longer subject to some of these permitting programs. Specifically, it is not a major onshore facility and is not governed by the Navigation Law, NYSDOT's regulatory authority under 17 NYCRR 30 or NYSDEC's program under 6 NYCRR 610. However, because the total storage of fuel oil in day tanks associated with auxiliary equipment is 1,700 gallons (falling within a regulatory range between a minimum of 1,100 gallons and a maximum of 400,000 gallons), the Project's oil storage will be subject to NYSDEC's bulk fuel oil registration requirements, pursuant to ECL §17-1009, and the implementing regulations in 6 NYCRR 612 through 614. Key provisions of these statutes and regulations are as follows:

Tanks must be made of steel and, if sited on-ground, underlain by impermeable barriers, with a leak monitoring system and cathodic protection for the bottom of the tank or equivalent;

Exterior surfaces of all new aboveground storage tanks must be protected by a primer coat, a bond coat and two or more final coats of paint, or equivalent;

All new underground piping systems must be made of steel or iron that is cathodically protected, fiberglass reinforced plastic or equivalent. However, all fuel oil storage day tanks will be directly connected to the emergency generating equipment, and no underground piping is expected.

It also should be noted that Articles 7 and 12 of the Suffolk County Sanitary Code include detailed permitting programs related to various types of hazardous materials, including all petroleum distillate oils. They are addressed in Section 10.4 (Compliance with Local Laws). According to the Suffolk County Department of Health Services, the County has, through appropriate NYSDEC filings pursuant to ECL §17-1017, obtained approval to enforce the Sanitary Code as a local law that provides "environmental protection equal to or greater than" the protection accorded through the above-described regulations. For that reason, this local law is not pre-empted by the state law.